

REMARKS

Claims 1-13 are all the claims pending in the application. Claims 1-8, 9 and 12 have been amended to change "adhesive-supported porous film" to "adhesive-supported on a porous film" for purposes of further clarity. The amendment is directed to form only.

Entry of the above amendments is respectfully requested.

I. Response to Nonstatutory Obviousness-type Double Patenting Rejection of Claims 1, 2, 4 and 8

Claims 1, 2, 4 and 8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2 and 5 of co-pending Application No. 10/422,884.

Without acquiescing in the merits of the rejection, since the Examiner has issued provisional nonstatutory obviousness-type double patenting rejections between two co-pending applications, the Examiner is respectfully requested to hold the provisional nonstatutory obviousness-type double patenting rejection in abeyance, until one or the other co-pending application is otherwise in condition for allowance. See MPEP §804.I.B and 804.I.B.1.

II. Response to Rejection of Claims 1, 2, 4 and 6-8 under 35 U.S.C. § 112, second paragraph

Claims 1, 2, 4 and 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Without conceding the merits of the rejection, claims 1-8, 9 and 12 have been amended by changing "adhesive-supported porous film" to --adhesive-supported on a porous film--, thereby obviating the rejection. Accordingly, withdrawal of the rejection is respectfully requested.

III. Response to Rejection of Claims 1, 2, 4, 6 and 8 under 35 U.S.C. § 102(b)

Claims 1, 2, 4, 6 and 8 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by JP 10-183085 ("JP '085").

Applicants respectfully traverse the rejection.

Independent claim 1 is directed to a partially crosslinked adhesive-supported on a porous film for battery separator, comprising a porous film substrate having supported thereon a partially crosslinked adhesive that is partially crosslinked by preparing a reactive polymer having a functional group in the molecule and capable of being crosslinked upon reaction with a polyfunctional compound having reactivity with the functional group and then reacting the reactive polymer with a polyfunctional compound.

It is respectfully submitted that JP '085 does not disclose that the adhesive is partially crosslinked.

JP '085 discloses that the adhesive composition comprises an acrylic copolymer, a tackifying resin, and an isocyanate-based crosslinker. In this regard, the degree of crosslinking highly depends on the amount of the isocyanates-based crosslinker as disclosed in the paragraph [0030] of JP '085, and it also depends highly on the amount of vinyl monomer having a hydroxyl group (X-2) as disclosed in the paragraph [0023] of JP '085. This crosslinking is so called an isocyanate crosslinking, and it generally terminates after the isocyanate is consumed or deactivated by the reaction. In JP '085, the control of the degree of crosslinking is important for achieving the desired function of adhesion. Therefore, in JP '085, the desired degree of crosslinking is achieved by controlling the amount of the isocyanate-based crosslinker and X-2 (vinyl monomer having a hydroxyl group), and it is not intended to further progress the crosslinking reaction. That is, in JP '085, there is no intention to conduct crosslinking only partially and to keep the remainder uncrosslinked. Thus, JP '085 does not disclose partial crosslinking.

On the other hand, in the present application, the adhesive is the constituent material of the battery separator that has an intended performance in the battery. In order to reach the desired crosslinking condition, it is important to further progress the crosslinking inside the batter. Therefore, in the present Invention, the crosslinking reaction is intentionally kept "partially" crosslinked prior to constituting the battery, and the adhesive is partially crosslinked.

For the above reasons, it is respectfully submitted that JP '085 does not anticipate claim 1.

In addition, each of claims 2, 4, 6 and 8 depend from claim 1, and thus, it is respectfully submitted that these claims are patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

IV. Response to Rejection of Claim 7 under 35 U.S.C. § 103(a)

Claim 7 rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP '085.

Applicants respectfully traverse the rejection.

Claim 7 depends from claim 1, and thus it is respectfully submitted that claim 7 is patentable for at least the same reasons as claim 1.

In addition, the Examiner acknowledges that JP '085 is silent regarding the supporting ratio (surface coverage ratio) of the adhesive over the substrate. However, the Examiner takes "Official Notice" that reduced adhesive surface coverage is common and well known, motivated by the desire to adjust the amount of adhesiveness and/or a reduced cost.

Applicants respectfully submit that "reduced adhesive surface coverage is common and well known, motivated by the desire to adjust the amount of adhesiveness and/or a reduced cost" is not considered to be common knowledge or well-known in the art. With regard to the

function of the battery, the securement of ion permeability is important, and it is preferable that the supporting ratio of adhesive is lower. However, when the adhesion to a battery is considered, it is preferable that the supporting ratio of adhesive is higher, since the adhesion area becomes larger.

In view of the above, withdrawal of the rejection is respectfully requested.

V. Conclusion

In view of the above, reconsideration and allowance of the application is respectfully requested.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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